

MACM 316 – Guidelines for Computing Assignments

The computing assignments are designed to get you to think critically about numerical algorithms. MACM 316 is not a programming class. Hence assignments will concentrate on the quantitative and qualitative understanding of algorithms, especially with respect to the three key concepts in the course: accuracy, efficiency and robustness.

Your reports should not only explain **what** code you have run, but also demonstrate your understanding of **why** it was useful to run. That is, state what you have observed and what it tells you about the algorithm under consideration. In your report, it is important to both explain **and** justify what you did, the parameters you chose, etc.

General Rules

You are encouraged to discuss the problems with others, but the submission **must** be your own work. You must acknowledge all collaborations and contributions from the instructor, TAs, fellow students, Canvas discussions, etc.

Written Communication

The purpose of written work is to communicate ideas to the reader. The quality of this communication reflects your level of understanding of the assignments. Consider your fellow students as your target audience – this is the level at which graders will be evaluating your work.

When writing your assignments, focus on **clarity**, **conciseness** and **correctness**:

- **Clarity.** Organize your assignment around key ideas, produce clearly labelled tables, plots and graphics and explain the information shown in them.
- **Conciseness.** Your assignments are limited to one page, including all tables, plots and graphics. Streamline your presentations whilst getting the main ideas across. Avoid being overly verbose.
- **Correctness.** Check your work carefully for mistakes. Does your data make intuitive sense? Surprising results may suggest a bug in your code. Are the conclusions you draw logical? If in doubt, discuss the problem with others.

Graphical Presentation

Do not put superfluous data in your reports. Do not include scripts, code, worksheets, etc with reports. Note that scripts are to be uploaded separately to Canvas.

Label figures completely. Include titles, axis labels and legends.

Clearly identify the important features of your graphics/plots. Don't leave it to the reader to find them. Annotate all figures as necessary, e.g. by writing directly on your plots.

On graphics, indicate what has been computed. The reader should, within reason, be able to reproduce your results.

Grading Scheme

Reports are limited to one page. Any reports over this length will automatically be given zero.

Reports must be saved in PDF format and uploaded to Canvas by the deadline. Word documents will not be accepted. Late assignments may be uploaded, but will automatically receive zero credit.

Matlab scripts must also be uploaded to Canvas by the deadline.

Reports are graded on a scale of **zero to five**. Up to four marks will be awarded for the correctness of the assignment, according to the following scale:

- 4** Exemplary presentation. Correct interpretation of the computed results.
- 3** Good presentation. Mostly correct interpretation.
- 2** Average to acceptable presentation. Somewhat correct interpretation.
- 1** Poor presentation, or incorrect interpretation of the computed results.
- 0** Incomplete/no/plagiarized work submitted.

In addition, up to **one mark** will be awarded for the written quality of the report. Poor, incomplete or incomprehensible writing will automatically receive zero in this segment.
